IN THE CLAIMS

Please cancel claims 13 and 39 without prejudice and substitute claims 1-12, 14-38, and 40-54 as follows:

1. (Currently Amended) A signal processing device comprising:

a first signal section detecting means for detecting a first signal section from an input signal including at least the first signal section and the remaining signal section on a time division basis;

a first signal extracting means for extracting ~~the~~ a first signal in the first signal section from the input signal in accordance with a result of the detection by the first signal section; ~~and~~

a recording means for recording ~~the extracted first~~ each signal extracted from the input signal by the first signal extracting means;

an index information extracting means for extracting information from said first signal section to be used as a user-selectable index representing said recorded first signal; and

a display means for displaying said index.

2. (Currently Amended) The signal processing device according to claim 1, further comprising a characteristic value extracting means for extracting ~~the~~ a characteristic values characterizing the first signal from the ~~extracted~~ detected first signal section, wherein said recording means records ~~the~~ each characteristic values of the first signal in association with the first signal.

3. (Currently Amended) The signal processing device according to claim 1, wherein said first signal section detecting means detects said first signal section from said input signal on the basis of a characteristic pattern of the first signal appearing in said input signal at predetermined time intervals and a characteristic value ~~showing~~ reflecting the probability of the first signal appearing in the input signal.

4. (Original) The signal processing device according to claim 1, wherein said first signal section detecting means detects said first signal section on the basis of predetermined guide information which is prepared corresponding to said input signal.

5. (Original) The signal processing device according to claim 2, wherein said characteristic value characterizing said first signal is amplitude of the signal in the first signal section.

6. (Original) The signal processing device according to claim 2, wherein said characteristic value characterizing said first signal is a spectrum of the signal in the first signal section.

7. (Original) The signal processing device according to claim 2, wherein said characteristic value characterizing said first signal is a linear prediction coefficient of the signal in the first signal section.

8. (Original) The signal processing device according to claim 2, wherein said characteristic value characterizing said first signal is a histogram of a predetermined component of the signal in the first signal section.

9. (Currently Amended) The signal processing device according to claim 2, wherein said characteristic value characterizing said first signal is mean value of ~~the~~ a predetermined component of the signal in the first signal section.

10. (Currently Amended) The signal processing device according to claim 2, wherein said characteristic value characterizing said first signal is a difference ~~of the~~ between two predetermined signal components of the first signal in the first signal section.

11. (Original) The signal processing device according to claim 2, wherein said characteristic value characterizing said first signal is the number of changes of the state of the signal in the first signal section.

12. (Original) The signal processing device according to claim 2, wherein said characteristic value characterizing said first signal is the time of the change of the state of the signal in the first signal section.

13. (Canceled)

14. (Currently Amended) The signal processing device according to claim ~~13~~ 1, wherein said index ~~information~~ is an edited signal obtained by editing said first signal.

15. (Original) The signal processing device according to claim 14, wherein said edited signal obtained by editing said first signal comprises a set of signals at the time when the state of said first signal changes.

16. (Currently Amended) The signal processing device according to claim 14, wherein said edited signal obtained by editing said first signal comprises a signal representing one of a starting part of said first signal ~~and/or a signal representing~~ and an ending part of said first signal.

17. (Currently Amended) The signal processing device according to claim ~~13~~ 1, wherein said index information extracting means extracts for the index a portion of the first signal at a time when the state of said first signal changes.

18. (Currently Amended) The signal processing device according to claim 2, further comprising a comparing means for comparing the characteristic values respectively characterizing ~~different~~ two first signals recorded by said recording means and discarding one of the recorded two first signals when the characteristic values of the two first signals are determined to be substantially the same.

19. (Currently Amended) The signal processing device according to claim 18, wherein said comparing means ~~is~~ detects agreement/disagreement of the two first signals in a part of the first signal section or in the entire first signal section by comparing said characteristic values.

20. (Currently Amended) The signal processing device according to claim 18, wherein said comparing means detects the degree of similarity of the two first signals in a part of the first signal section or in the entire first signal section by comparing said characteristic values.

21. (Currently Amended) The signal processing device according to claim 18, wherein said comparing means performs the comparing operation on a basis of ~~the~~ a distance as determined by using a predetermined distance scale between vectors corresponding to the two first signals, the respective vector of each of the two first signals formed from at least one of the amplitude of the signal in the first signal section, the spectrum of the signal in the first signal section, the linear prediction coefficient of the signal in the first signal section, the histogram of a predetermined component of the signal in the first signal section, the mean value of the predetermined component of the signal in the first signal section, ~~the~~ a difference between two ~~in the~~ two predetermined signal components of the signal in the first signal section, the number of changes in the state of the signal in the first signal section and the time of a change in the state of the signal in the first signal section.

22. (Currently Amended) The signal processing device according to claim 13, wherein said user-selectable index is one of a plurality of user-selectable indices each of which

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correspond to an extracted signal from said input signal, said display means displays each of said indices, and further comprising:

an index information ~~specifying~~ selecting means for ~~specifying desired index information~~ selecting one index from said displayed plurality of ~~pieces of index information~~ indices; and

a retrieving means for retrieving ~~the first~~ one of the recorded extracted signals corresponding to said ~~specified~~ selected one index ~~information~~.

23. (Currently Amended) The signal processing device according to claim 2, further comprising:

a retrieving means for retrieving ~~the first~~ one of the recorded extracted signals substantially agreeing with said first signal from said recording means, using said first signal in a part of the section or in the entire section or a characteristic value characterizing the first signal as a retrieving condition.

24. (Currently Amended) The signal processing device according to claim 2, further comprising:

a retrieving means for retrieving ~~the first~~ one of the recorded extracted signals substantially agreeing with said first signal from said recording means, using a part or all of said first signal or a characteristic value characterizing the first signal as a retrieving condition.

25. (Original) The signal processing device according to claim 1, further comprising:

a measuring means for measuring the number of times and/or the hours of appearances of

a same first signal.

26. (Original) The signal processing device according to claim 1, further comprising:

a measuring means for measuring the number of times and/or the hours of appearances of

similar first signals.

27. (Currently Amended) A signal processing method comprising the steps of:

detecting a first signal section from an input signal containing at least the first signal

section and the remaining signal section on a time division basis;

extracting ~~the~~ a first signal of the first signal section out of the input signal in accordance

with to the result of the detection of the first signal section; ~~and~~

recording ~~the extracted first~~ each signal extracted from the input signal by the first signal

extracting means;

_____ extracting information from said first signal section to be used as a user-selectable index

representing said recorded first signal; and

_____ displaying said index.

28. (Currently Amended) The signal processing method according to claim 27, further

comprising the steps of:

extracting ~~the~~ a characteristic value~~s~~ characterizing the first signal from the ~~extracted~~

detected first signal section; and

each characteristic values of the first signal in association with the first signal.

29. (Currently Amended) The signal processing method according to claim 27, wherein said first signal section detecting step is adapted to detect said first signal section from said input signal on the basis of a characteristic pattern of the first signal appearing in said input signal at predetermined time intervals and a characteristic value showing reflecting the probability of the first signal appearing in the input signal.

30. (Currently Amended) The signal processing method according to claim 27, wherein said first signal section detecting step is adapted to comprises detecting said first signal section on a basis of predetermined guide information which is prepared to correspond to said input signal.

31. (Original) The signal processing method according to claim 28, wherein said characteristic value characterizing said first signal is amplitude of the signal in the first signal section.

32. (Original) The signal processing method according to claim 28, wherein said characteristic value characterizing said first signal is a spectrum of the signal in the first signal section.

33. (Original) The signal processing method according to claim 28, wherein said characteristic value characterizing said first signal is a linear prediction coefficient of the signal in the first signal section.

34. (Original) The signal processing method according to claim 28, wherein said characteristic value characterizing said first signal is a histogram of a predetermined component of the signal in the first signal section.

35. (Currently Amended) The signal processing method according to claim 28, wherein said characteristic value characterizing said first signal is a mean value of the a predetermined component of the signal in the first signal section.

36. (Original) The signal processing method according to claim 28, wherein said characteristic value characterizing said first signal is a difference of the between two predetermined signal components of the first signal in the first signal section.

37. (Original) The signal processing method according to claim 28, wherein said characteristic value characterizing said first signal is the number of changes of the state of the signal in the first signal section.

38. (Original) The signal processing method according to claim 28, wherein said characteristic value characterizing said first signal is the time of the change of the state of the signal in the first signal section.

39. (Canceled)

40. (Currently Amended) The signal processing method according to claim ~~39~~ 27, wherein said index ~~information~~ is an edited signal obtained by editing said first signal.

41. (Original) The signal processing method according to claim 40, wherein said edited signal obtained by editing said first signal comprises a set of signals at the time when the state of said first signal changes.

42. (Currently Amended) The signal processing method according to claim 40, wherein said edited signal obtained by editing said first signal comprises a signal representing <u>one of</u> a starting part of said first signal ~~and/or a signal representing~~ <u>and</u> an ending part of said first signal.

43. (Currently Amended) The signal processing method according to claim ~~39~~ 27, wherein said index information extracting step ~~is adapted to extract~~ <u>comprises extracting as the index a portion of</u> the <u>first</u> signal at a time when the state of said first signal changes.

44. (Currently Amended) The signal processing method according to claim 28, further comprising ~~a comparing step for~~ comparing the characteristic values respectively characterizing ~~different~~ two first signals recorded by said recording means and discarding one of the recorded two first signals when the characteristic values of the two first signals are determined to be substantially the same.

45. (Currently Amended) The signal processing method according to claim 44, wherein said comparing step is adapted to detect the agreement/disagreement of the two first signals in a part of the first signal section or in the entire first signal section by comparing said characteristic values.

46. (Currently Amended) The signal processing method according to claim 44, wherein said comparing step is adapted to detect the degree of similarity of the two first signals in a part of the first signal section or in the entire first signal section by comparing said characteristic values.

47. (Currently Amended) The signal processing method according to claim 44, wherein said comparing ~~steps is adapted to perform the~~ step comprises comparing ~~operation~~ the characteristic values respectively characterizing the two first signals on the basis of the distance as determined by using a predetermined distance scale between vectors corresponding to the two first signals, the respective vector of each of the two first signals formed from at least one of the amplitude of the signal in the first signal section, the spectrum of the signal in the first signal

section, the linear prediction coefficient of the signal in the first signal section, the histogram of a predetermined component of the signal in the first signal section, the average value of a predetermined component of the signal in the first signal section, ~~the~~ a difference ~~in a~~ between two predetermined signal components of the signal in the first signal section, the number of changes in the state of the signal in the first signal section and the time of a change in the state of the signal in the first signal section.

48. (Currently Amended) The signal processing method according to claim 39, wherein said user-selectable index is one of a plurality of user-selectable indices each of which correspond to an extracted signal from said input signal, said display means displays each of said indices, and further comprising ~~an index information specifying step for specifying desired index information~~ selecting one index from said displayed plurality ~~of pieces of index information~~ indices; and ~~a retrieving step for~~ retrieving ~~the first~~ one of the recorded extracted signals corresponding to said ~~specified~~ selected one index ~~information~~.

49. (Currently Amended) The signal processing method according to claim 28, further comprising a retrieving step for retrieving ~~a first~~ one of the recorded extracted signals substantially agreeing with said first signal from said recording step, using said first signal in a part of the section or in the entire section or a characteristic value characterizing the first signal as a retrieving condition.

50. (Currently Amended) The signal processing method according to claim 28, further comprising a retrieving step for retrieving ~~a first~~ one of the recorded extracted signals substantially agreeing with said first signal from said recording step, using a part or all of said first signal or a characteristic value characterizing the first signal as a retrieving condition.

51. (Original) The signal processing method according to claim 27, further comprising a measuring step for measuring the number of times and/or the hours of appearances of a same first signal.

52. (Original) The signal processing method according to claim 27, further comprising a measuring step for measuring the number of times and/or the hours of appearances of similar first signals.

53. (Original) The signal processing device according to claim 1, wherein said input signal comprises a video signal and/or an audio signal and said first signal covers a commercial message section.

54. (Original) The signal processing method according to claim 27, wherein said input signal comprises a video signal and/or an audio signal and said first signal covers a commercial message section.